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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/551,938

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Frans Setiabudi

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11/20/2007

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LEGAL DEPARTMENT

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EXAMINER

FEELY, MICHAEL J

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

11/20/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/551,938

Applicant(s)

SETIABUDI ET AL.

Examiner

Michael J. Feely

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6,9 and 10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6,9 and 10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Pending Claims

Claims 1-6, 9, and 10 are pending.

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 112, 2nd paragraph

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-6, 9, and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Independent claims 1 and 9 recite that the benzylidenamine compound is *obtainable* by reacting a benzaldehyde (of specific formula) with a primary amine. The use of the word *obtainable* is indefinite because it is not clear if this compound is actually *obtained* by the claimed reaction. Applicant is advised to substitute *obtainable* with *obtained*.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-4, 6, 9, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gruber (US Pat. No. 4,608,300) in view of Zondler et al. (US Pat. No. 4,163,098).

Regarding claims 1, 3, 4, and 6, Gruber discloses: **(1)** a fiber composite impregnated with a curable, solvent-free epoxy resin matrix (Abstract; column 3, lines 16-68), comprising: (a) a liquid epoxy resin or a liquid mixture of epoxy resins (Abstract; column 2, lines 1-20), (c) an aliphatic or cycloaliphatic primary monoamine and/or dissecondary diamine (Abstract; column 2, lines 21-33), and (d) a catalytically curing tertiary amine (Abstract; column 2, lines 34-56), the curable epoxy resin matrix containing from 0.15 to 0.8 amine hydrogen equivalent of the amine component (c) (column 1, lines 57-64) and from 0.01 to 0.1 mol of the tertiary amine (d) per epoxide equivalent of the epoxy resin (a) (column 1, lines 57-64); **(3)** containing from 0.2 to 0.7 amine hydrogen equivalent of the amine component (c) (column 1, lines 57-64) and from 0.02 to 0.06 mol of the tertiary amine (d) per epoxide equivalent (column 1, lines 57-64); **(4)** wherein component (c) is an aliphatic or cycloaliphatic monoamine (Abstract; column 2, lines 21-26); and **(6)** a fiber composite system produced from the fiber composite according to claim 1 together with wood or plastics having a low softening point (Abstract; column 3, lines 55-62).

Gruber is deficient in that he fails to include the instantly claimed component (b): a benzylidenamine compound *obtained* by reacting benzaldehyde of formula (I) with a primary amine.

It should be noted that Gruber alternatively uses (1) a catalytic tertiary amine (*corresponding to instantly claimed component (d)*) or (2) a cycloaliphatic diamine (*such as 3-*

aminomethyl-3,5,5-trimethylcyclohexylamine) or an aliphatic diamine or polyamine, containing not more than one sterically unhindered primary amine group (*see Abstract; column 2, lines 34-64*). These alternatives are presented as equivalents. In light of this, it has been found that, "It is *prima facie* obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art," – *In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980). Therefore, it would have been obvious to use both of these materials in combination. Still, the teachings of Gruber fail to include the instantly claimed component (b): a benzylidenamine compound *obtained* by reacting benzaldehyde of formula (I) with a primary amine.

Zondler et al. disclose an epoxy resin composition containing an epoxy resin, a cycloaliphatic diamine curing agent (*such as 3-aminomethyl-3,5,5-trimethylcyclohexylamine*), and a hydrazone modifier (*see Abstract; column 2, lines 50-68*). The hydrazone modifier corresponds to instantly claimed component (b), and Zondler et al. disclose that it is particularly useful because it provides good resistance to chemicals (*see Abstract; column 3, lines 18-35*).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include instantly claimed component (b), as taught by Zondler et al., in the obvious composition of Gruber because the obvious composition of Gruber features a cycloaliphatic diamine (*such as 3-aminomethyl-3,5,5-trimethylcyclohexylamine*) and the teachings of Zondler disclose that instantly claimed component (b), when used in concert with a cycloaliphatic

diamine (*such as 3-aminomethyl-3,5,5-trimethylcyclohexylamine*), provides beneficial chemical resistance to the cured epoxy resin composition.

Regarding claim 2, the combined teachings fail to explicitly disclose: (2) from 0.3 to 20% by weight of instantly claimed component (b), based on components (a), (c) and (d).

Zondler et al. disclose that their modifier (*corresponding to instantly claimed component (b)*) is used in molar equivalence to twice the molar amount cycloaliphatic diamine. When adapted to the obvious composition of Gruber, one of ordinary skill in the art would have expected the resulting weight ratio to inherently overlap the claimed range.

Therefore, it appears that the instantly claimed weight ratio would have been satisfied by the combined teachings because Zondler et al. disclose that their modifier (*corresponding to instantly claimed component (b)*) is used in molar equivalence to twice the molar amount cycloaliphatic diamine. When adapted to the obvious composition of Gruber, one of ordinary skill in the art would have expected the resulting weight ratio to inherently overlap the claimed range.

Regarding claims 9 and 10, the combined teachings of Gruber and Zondler et al. are as set forth above and incorporated herein to satisfy the limitations of claims 9 and 10.

Allowable Subject Matter

6. Claim 5 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter: the prior art fails to teach or suggest the use of benzyldenebenzylamine ($\text{Ph-CH}_2\text{-N=CH}_2\text{Ph}$) as the instantly claimed component (b).

Information Disclosure Statement

8. The US references cited in the International Search Report have been considered, but will not be listed on any patent resulting from this application because they were not provided on a separate list in compliance with 37 CFR 1.98(a)(1). In order to have the references printed on such resulting patent, a separate listing, preferably on a PTO/SB/08A and 08B form, must be filed within the set period for reply to this Office action.

9. The listing of foreign and NPL references in the Search Report is not considered to be an information disclosure statement (IDS) complying with 37 CFR 1.98. 37 CFR 1.98(a)(2) requires a legible copy of: (1) each foreign patent; (2) each publication or that portion which caused it to be listed; (3) for each cited pending U.S. application, the application specification including claims, and any drawing of the application, or that portion of the application which caused it to be listed including any claims directed to that portion, unless the cited pending U.S. application is stored in the Image File Wrapper (IFW) system; and (4) all other information, or that portion which caused it to be listed. In addition, each IDS must include a list of all patents, publications, applications, or other information submitted for consideration by the Office (see 37 CFR 1.98(a)(1) and (b)), and MPEP § 609.04(a), subsection I. states, "the list ... must be submitted on a separate paper." Therefore, the references cited in the Search Report have not been considered. Applicant is advised that the date of submission of any item of information or

any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the IDS, including all "statement" requirements of 37 CFR 1.97(e). See MPEP § 609.05(a).

Conclusion

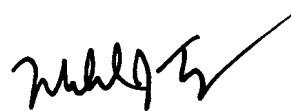
10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Inbasekaran et al. (US Pat. No. 5,288,816) disclose a thermosetting composition featuring materials similar to instantly claimed component (b). However, they fail to teach or suggest the overall curing system set forth in the instant invention.

Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Feely whose telephone number is 571-272-1086. The examiner can normally be reached on M-F 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Y. Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Michael J. Feely
Primary Examiner
Art Unit 1796

November 16, 2007

**MICHAEL FEELY
PRIMARY EXAMINER**